By Loren Thompson

Joint STARS can save troops' lives

Since the Persian Gulf War, the U.S. military has been on the verge of solving one of the most vexing problems of warfare: tracking and targeting an enemy that is on the move. And yet, this past year the administration chose to make cuts in the one system that could get that job done: the nation's newest and most advanced surveillance aircraft.

Known as the E-8 Joint Surveillance and Target Attack Radar System, or Joint STARS, this aircraft became one of the technological stars of the gulf war. Nearly seven years later, the Pentagon was scheduled to declare it operational in mid-December.

Whether Joint STARS will ever live up to its potential ultimately depends on whether we buy enough of them.

To put it bluntly, having more Joint STARS means fewer casualties on some future battlefield.

According to the latest blueprint for the future of our military, issued by the National Defense Panel, "we are on the cusp of a military revolution stimulated by rapid advances in information and information-related technologies."

The panel's report, produced by an outside group of military experts set up by Congress to critique the Pentagon's Quadrennial Defense Review, cites a "growing potential to detect, identify and track far greater numbers of targets over a large area for a longer time than ever before, and to provide this information much more quickly and effectively than heretofore possible."

Situational awareness

But cutting through the fog of war will take more money than the administration seems inclined to spend on some of the most promising information technologies.

Joint STARS is a case in point. It is one of the key pieces of what the military is now calling battlefield "situational awareness," the ability to see the big picture and to be able to choose the time and place to attack enemy forces — before they can attack our military forces.

The gulf war demonstrated the importance of what traditionally has been known as reconnaissance, surveillance and intelligence.

- For example, space assets contributed such things as the detection of Iraqi missile launches, navigation, imagery and communications to the allied war effort.
- AWACS, or Airborne Warning and Control System aircraft, served as the military's air-traffic controller, identifying enemy aircraft and then helping to direct the air battle.
- Joint STARS prototypes, rushed to the theater at the request of the commander of Operation Desert Storm, Army Gen. H. Norman Schwarzkopf, identified moving ground targets "in real time" and then helped direct attacks on them.

Interdicting enemy armor columns before they could engage allied forces clearly saved lives.

As a number of Air Force generals have observed, Joint STARS is to the ground battle what the E-3 Sentry AWACS is to the air battle. During the gulf war, Joint STARS provided air and ground commanders a real-time tactical view of the battlefield never before achieved in the history of warfare.

The combination of moving-target indicators and synthetic-aperture radars produced images that allowed operators to pick out individual vehicles in a moving convoy and even distinguish between wheeled and tracked vehicles.

Since the gulf war, Joint STARS developmental aircraft have seen extensive service in Bosnia. But even as the third production aircraft arrives at the 93rd Air Control Wing at Robins Air Force Base, Ga., there are signs that the potential of this revolutionary capability may never be fully realized.

Like the F-22 Raptor and the B-2 Spirit, the number of Joint STARS' aircraft was cut from 19 to 13 as a result of the Quadrennial Defense Review and previous budget-driven exercises.

The report by the National Defense Panel rightly questioned this shortsighted decision. In fact, Joint STARS was the only program cut that was singled out for criticism in the panel's report.

Recent experience in Bosnia suggests that even the original planned purchase of 19 aircraft would fall short of our military needs when measured by the two major-theater-war yardstick embodied in our national military strategy.

In Bosnia, military commanders had only partial coverage from two aircraft. But one thing became clear: The mountainous terrain there would have required even more coverage than the three continuous orbits that planners were using as the benchmark for a single-theater war. Each orbit requires four Joint STARS, so even in a limited operation like Bosnia, 12 aircraft would be required to conduct three continuous orbits. Add just one orbit and 16 aircraft would be needed to provide full coverage.

One unnamed Air Force official recently told a trade magazine, Aviation Week & Space Technology, that the United States needs a minimum of 30 Joint STARS aircraft. In light of recent operational experience, under a two-theater scenario even that number probably would be inadequate.

Take the example of AWACS, another high-demand system. The Air Force has 33 AWACS and its crews have been among the busiest in the service, deployed so often in operations other than war that retention problems

have become a major concern.

Although national leaders have said we should be prepared to fight two nearly simultaneously theater wars, they have placed no such limits on operations other than war.

In sufficient numbers, Joint STARS will provide U.S. forces a significant advantage on some future battlefield. Army soldiers who had to face fewer Iraqi tanks became believers in this capability during Operation Desert Storm, and airmen are confident that the combination of situational awareness and precision strikes will stop a future enemy advance its tracks. That ultimately means fewer American casualties.

Like other high-payoff technologies, the potential of Joint STARS should not be squandered.

At the very least, funding should be restored for the previously planned purchase of 19 aircraft.

Loren Thompson directs the national-security program of the Alexis de Tocqueville Institution, a public policy research organization based in Arlington, Va. He teaches at Georgetown University's national-security studies program.